

Biological Opinion on the Corps' Revised Interim Operations Plan (RIOP)



1. Did the Service “approve” the Corps’ Revised Interim Operating Plan?

The Service’s role under the Endangered Species Act (ESA) is not to approve or disapprove a federal agency action. The Service’s role is to review the Corps’ plan and issue an opinion as to whether or not the proposed action would jeopardize the continued existence of listed species or destroy or adversely modify critical habitat. The Service’s opinion concluded that the Revised Interim Operating Plan is not likely to jeopardize the listed species nor adversely modify the critical habitat, but that the plan will likely result in “take” of the listed species. The Service has given the Corps’ some reasonable and prudent measures that will help minimize the effect of that anticipated take.

2. What has the Corps of Engineers proposed?

For details, please consult the Corps of Engineers website at <http://www.sam.usace.army.mil>

In making modifications to the previous interim operating plan, the Corps considered current species information, basin stakeholder input, lessons learned from 2006-07, and additional modeling analysis. The revised plan includes three operational seasons, a drought contingency component, and additional opportunities to conserve storage as the system enters and exits drought conditions while still providing support for listed species and their critical habitat in the Apalachicola River.

3. Why did the Service have to produce a Biological Opinion on the Corps’ Revised Interim Operating Plan?

The U.S. Army Corps of Engineers determined that enacting the Revised Interim Operating Plan was likely to adversely affect listed species and designated critical habitat. As required under the Endangered Species Act, the Corps requested formal consultation with the Service to ensure that carrying out their proposed plan would not jeopardize the continued existence of these species, or destroy or adversely modify their critical habitat.

4. In this Biological Opinion, what did the Service conclude about the effect of the Corps’ Revised Interim Operating Plan on listed species?

None of the species being considered will be jeopardized or their critical habitat adversely modified by the provisions of the Revised Interim Operating Plan. It would not appreciably reduce the likelihood that the four listed species can survive nor preclude their future recovery.

5. How long will the Revised Interim Operating Plan be in place?

The opinion will be in effect for five years, to coincide with the Corps Water Control Plan revision, or unless significant new information prompts a reinitiation of consultation.

6. What does it mean to “reinitiate consultation”?

Federal agencies that have previously consulted with the Service on their actions are required to come back for additional consultation if:

- the amount or extent of anticipated incidental take is exceeded;
- new information reveals the effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
- the action is modified in a manner that causes effects to listed species or critical habitat not previously considered; or
- a new species is listed or critical habitat designated that may be affected by the action.

7. Will mussels be killed under this plan?

The fat threeridge mussel is the most vulnerable because it generally occupies areas with water depths less than four feet relative to a river stage of 5,000 cfs. It is likely that fat threeridge mussels will be exposed when flows in the river decrease. When flows remain lower for many days, the mussels would be unable to survive. If minimum flows drop to

4,500 cfs, we anticipate about nine percent (21,000) of known fat threeridge mussels would be exposed and at risk of death. Additionally, about 200 purple bankclimbers and 100 Chipola slabshell mussels are expected to die of exposure if flows are dropped to 4,500 cfs.

8. How can the Service allow mussels to be killed? Doesn’t the Endangered Species Act prohibit that from happening?

When Congress wrote the Endangered Species Act, it prohibited activities that would injure or kill federally-listed species, or prevent those species from carrying out their normal life cycles in the wild.

The Congress also recognized that it might be necessary for federal agencies to injure or kill federally-listed species when carrying out Agency missions for the benefit of the American people. Therefore, it established procedures under section 7 of the ESA, which allows agencies to carry out their lawful missions, provided these actions are unlikely to jeopardize federally-listed species or destroy or adversely modify their designated critical habitat. If a federal action agency engages in formal consultation with the Service and receives a biological opinion and incidental take statement, the unintentional injury or death that would result to these species is not prohibited.

9. What will be the effects of this plan on Gulf sturgeon?

We analyzed several potential effects. We found that changes in the amount of spawning habitat due to the Revised Interim Operating Plan are small. However, take of Gulf sturgeon eggs and larvae due to the Revised Interim Operating Plan may occur in the spring when river stage declines significantly in 14 days or less. The extent of Gulf sturgeon take due to the fall rates is difficult to determine at this time. Such stage declines are present in the historic record. We will continue to work with the Corps to find reasonable and prudent ways to avoid and minimize this adverse effect.

10. Did the Service evaluate Gulf sturgeon spawning this spring?

Yes, we sampled three sites and captured eggs at all three sites at various discharges and temperatures. This information is similar to what was found previously. However, we did document spawning at a site where eggs had not been found previously. The new site was included in our calculation of acres of spawning habitat affected by the Revised Interim Operating Plan. The remaining data will be analyzed and included in a report to the Corps later in the summer.

11. What has happened or changed since Nov. 15, 2007?

Please see Corps of Engineers web site for current water conditions and the results of the December mussel monitoring when flows were reduced to 4,750 cfs.

12. What is the current forecast from NOAA on the climate?

The ACF basin is experiencing the second year of severe drought conditions within the basin. The U.S. Drought Monitor has classified significant portions of the basin as “D3 Drought – Extreme” or “D4 Drought – Exceptional” during much of the past year.
<http://drought.unl.edu/dm/monitor.html>

The most recent drought monitor (May 20, 2008) classifies the upper basin as being in moderate to severe drought and the remainder of the basin abnormally dry.

A May 15, 2008 “U.S. Seasonal Drought Outlook” from the National Weather Service shows the upstream half of the ACF Basin in a zone labeled as “Drought likely to improve, impacts ease.”
http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html

13. What is different under Revised Interim Operating Plan?

From the Corps’ perspective:
There are more opportunities for storing water; the drought contingency is built in with the flexibility to reduce minimum flows to 4,500 cfs if necessary, and there is no ramping requirement during drought operations.

From the Service’s perspective:
The most important feature is that the Corps will continue to augment flows that have been reduced significantly by consumption. However, there are a number of trade-offs in storage

management to achieve this benefit. These include in dry years when flows get low they stay low for unprecedented durations, one step reduction to 4,500 cfs and possible rapid stage decline after rains. In normal years, there are more frequent flows less than 10,000 cfs and more days less than 6,000 cfs, also more days with bigger fall rates and fewer acres of floodplain flooded.

14. What recommendations does the Service have to minimize the impact on listed species?

The Service is asking the Corps to consider several options that may help avoid and minimize the impact on species. These reasonable and prudent measures include:

- continuing a strategy to collect and evaluate new information about listed species, water use and climatic conditions in order to adaptively manage the ACF system to improve operations where possible,
- clarifying their drought operation procedures, evaluating alternate methods to estimate basin inflow, and evaluating alternative strategies for reducing large fall rates, and
- continuing their efforts to monitor the level of take associated with the RIOP and evaluate ways to minimize take of listed species.

15. How much less water will leave Lake Lanier now that this plan is in place?

Detailed questions about the provisions of the Revised Interim Operating Plan and likely effects to reservoirs and river water levels are best directed to the Corps of Engineers.

16. What is being done about all the effects of the Corps’ dams on Apalachicola River and Bay?

It is important to note that a biological opinion is a comparison of a federal proposed action with the baseline that includes conditions that the listed species are living in today. A biological opinion is not a retrospective look at all of the federal actions previous to the consultation. Therefore, the opinion on the Revised Interim Operating Plan does not address the construction of the reservoirs and their operation.

During the planning process to update the Corps Water Control Plan, the Service, along with the state fish and

wildlife agencies, will be working with the Corps to review all effects of water management on fish and wildlife of the basin, to ensure that fish and wildlife are given equal consideration in the Corps’ plan, and to help identify opportunities to restore lost habitats. The continuing discussions about fish passage at Jim Woodruff lock is an example of this type of coordination.

17. Will this end the water controversy?

The controversy over water will not end with this action. How water will be managed will continue to be a challenge for us all.

All the various users of the river system want the same limited resource. How water is used and when it is used will continue to be a basis for controversy. People from cities up and down this basin - from Gainesville and Atlanta to LaGrange, West Point, and Apalachicola among others - depend on a reliable source of water for power generation, municipal and industrial needs, drinking water, flood control, fish and wildlife and wildlife-dependent recreation, commercial fishermen, agriculture, navigation and more.

Fish and other species that live in the river need a clean, healthy river system to survive and ultimately thrive. Sometimes the least understood or well-known species are indicators of how well people are using and protecting the river. If fish and mussels are struggling, that’s a signal that we need to pay attention.

We at the U.S. Fish and Wildlife Service are responsible for the protection of wildlife, and we do our best to do that using the best science available with the best people in the business. Even if the mussels and fish affected by lack of water were not part of the picture, allocating water in this basin would still be a challenge. It will take all of us collectively to meet the challenges of limited water resources and ever-increasing human population.

18. So what happens next?

The Corps will implement the Revised Interim Operating Plan. Our staff will continue working in a collaborative fashion with the Corps. This is not a static process.

19. How does this affect me?

Water is one of the most basic, yet crucial requirements for life. How we conserve and use this resource will affect the entire region, from the smallest river creature to the many industries including food and energy production, fishing and consumers along the banks of this magnificent river system from North Georgia all the way to the Gulf of Mexico.

All of us who use and consume water, food, electricity, and use the rivers and waters in reservoir storage area for fishing or recreation should care. We must all work together to ensure that the unique natural resource treasures of the Apalachicola-Chattahoochee-Flint basin and its estuary, Apalachicola Bay, are here for the use and enjoyment of generations to come.

General Questions on Section 7 of the Endangered Species Act

What is a "Biological Opinion"?

A biological opinion is a document required under the Endangered Species Act that contains the opinion of the U. S. Fish and Wildlife Service or the National Marine Fisheries Service as to whether a federal action is likely to result in jeopardy to an endangered or threatened species or result in destruction or adverse modification of its designated critical habitat. It includes a summary of the information on which the opinion is based, and a detailed discussion of the effects of the action on adversely affected species or critical habitat.

What is the purpose of the Fish and Wildlife Service's Biological Opinion?

Under section 7 of the Endangered Species Act, federal agencies are required to consult with the Fish and Wildlife Service (Service) when their actions may affect listed species. The Army Corps of Engineers (Corps) has asked the Service to consult on management of available water in the Apalachicola-Chattahoochee-Flint (ACF) system.

What does the term "to jeopardize" mean?

An action is likely to jeopardize the continued existence of a federally-listed species if would appreciably reduce the likelihood of both survival and recovery of that species in the wild, by reducing its reproduction, numbers, or distribution.

What is Critical Habitat?

Critical habitat is a term in the ESA that identifies geographic areas with features essential for the conservation of a threatened or endangered species, and which may require special management consideration or protection. These areas are generally, but not necessarily, occupied by the species at the time of designation. Federal agencies are charged with insuring that their actions do not result in the destruction or adverse modification of designated critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. It does not grant government or public access to private lands.

What does the term "destruction or adverse modification" mean?

"Destruction or adverse modification of designated critical habitat" is defined in our regulations as a "direct or indirect alteration that appreciably diminishes the value of the critical habitat for both the survival and recovery of a listed species" (50 CFR 402.02). Such alterations include, but are not limited to, adverse changes to the physical or biological features that were the basis for determining the habitat to be critical. Two federal courts in two separate critical habitat cases have ruled that this definition is invalid. In response to these rulings, we are currently reviewing the definition, but have not yet proposed any revision to the regulations. Until new regulations are adopted, we must rely upon the ESA statute itself and the court decisions to determine if an action would alter or affect the proposed critical habitat in the action area to the extent that it would appreciably diminish the habitat's capability to provide the intended conservation role for these mussels in the wild.

What is incidental take?

Incidental take is death or injury to a listed species that results from (but is not the purpose of) carrying out an otherwise lawful activity on the part of a federal agency.

What is an incidental take statement?

If formal consultation has determined that a federal action will not jeopardize the continued existence of an endangered or threatened species, yet the action is still likely to result in some level of unintentional injury or death to that species, an incidental take statement in

the biological opinion anticipates and exempts from the prohibitions of section 9 of the ESA the amount of injury or death to individual animals, and suggests ways to minimize that loss.

What does it mean when the Service gives the Corps a "reasonable and prudent measure"?

If a federal action agency engages in formal consultation with the Service, and the Service determines that the proposed action is not likely to jeopardize the continued existence of a federally listed species, the Service prepares reasonable and prudent measures for the action agency. These are actions the Service believes necessary to minimize the adverse effects of the anticipated take. Each reasonable and prudent measure is accompanied by specific terms and conditions to implement them.

Although reasonable and prudent measures are non-discretionary, they must involve only a minor change to the action, must be specific in how they will reduce the level of incidental take resulting from the action, and must be clear and specific in how they can be accomplished. Reasonable and prudent measures are developed in cooperation with the federal action agency during formal consultation and the action agency is given the final determination as to whether these measures are "reasonable and prudent."

What is the Service's role under the Fish and Wildlife Coordination Act?

Our role is to evaluate impacts to fish and wildlife from proposed water resource development projects and to provide recommendations to the action agency as to how they could conserve fish, wildlife, and habitat and how they could mitigate or compensate for any loss or damages.

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